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## FURTHER NOTES ON THE ARCHEOLOGY OF PORTO RICO

By J. WALTER FEWKES

Since the publication of his memoir on the *Aborigines of Porto Rico and Neighboring Islands*<sup>1</sup> the author has received considerable additional data tending to elucidate the meaning of certain archeological material from the Antilles. Among the most significant is a collection of prehistoric objects presented to the Smithsonian Institution by Miss A. B. Gould<sup>2</sup> of Boston, which includes, among other specimens, one of the best stone pestles from the West Indies yet described (by far the best from Porto Rico); two three-pointed stones, a fine mortar with two cavities, a double-bladed ax, and a "semicircular stone" with a face cut in relief on one side.

The author has been able to purchase a few objects from Vieques, a Carib island near Porto Rico, the archeology of which is almost unknown. These specimens, which have been added to the Smithsonian collection, are especially significant owing to the localities in which they were found. In addition to the objects mentioned, he has received from Señor Grullon several photographs of pictographs and instructive specimens preserved in the museum at Santiago de los Caballeros, Republica Dominicana.<sup>3</sup> It is not the intention at this time to do more than to refer to these photographs, since this article deals mainly with Antillean objects added to the Smithsonian collections since the publication of the memoir above cited. While photographs of several instructive objects from Santo Domingo are here reproduced, this account does not touch on all the material in

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<sup>1</sup> Twenty-fifth Annual Report of the Bureau of American Ethnology.

<sup>2</sup> The author takes this occasion to express his indebtedness to Miss Gould for this and other aid in his Porto Rico studies.

<sup>3</sup> The writer is greatly indebted to his friend Señor Grullon for valuable information and for permission to publish the accompanying photographs of stone objects. It is a pleasure to make this acknowledgment to this zealous student of Antillean antiquities.

possession of the writer,<sup>1</sup> who looks forward to an opportunity to revisit that island and examine the many prehistoric objects there awaiting archeological study.

Accompanying the collection sent by Miss Gould there is a spool-shaped stone object which is believed to be a natural form. This specimen may have been used as a stool or an anvil, or for some other purposes. It measures 7 to 9 in. in diameter by 9 in. in height.

The material considered in this paper is grouped as follows: three-pointed zemis; stone pestle; mortar; semicircular stone disk; ovate stone with three knobs; elbow-stone; clay cylinder; and double-bladed ax.

The most characteristic forms of prehistoric stone objects from Porto Rico are the so-called "stone collars" and "three-pointed stones." It would appear from the character of the latter that they were used for religious purposes, representing different supernatural beings.<sup>2</sup> They are possibly the "stones with three points" which early writers declare were used to increase the productiveness and growth of the *yuca*, a plant from the root of which the food cassava was prepared.

Two fine specimens of three-pointed stones have been presented to the Smithsonian through the kindness of Miss Gould, and the writer has received from Señor Grullon photographs of three others the originals of which are now in the Santiago Museum.

Three-pointed stones have been divided by the author into four types, which radically differ from one another in the modifications of the parts that give them their names. The three points are classified as the anterior, the posterior, and the conoid projections. The base is a flat or slightly concave rough surface extending from anterior to posterior projection, on which the three-pointed stone generally rests when placed in a normal position.

These three-pointed stones are regarded as clan or family idols

<sup>1</sup> Several photographs of pictographs found in Porto Rico and Santo Domingo have been received by the author since his earlier papers were written. These will be considered in a future article.

<sup>2</sup> The author long ago identified these stones as images of supernatural beings called *zemis* (*cemis*). The absence of reference to them in early documents is indicative of their religious or sacred character.

which were kept in houses of caciques, or in caves, and used by the islanders in their worship. Although the true significance, if any, of their differences in form is yet to be discovered, a classification into types is of advantage in their study.

*First Type of Three-pointed Zemis.*—This type has a rude head carved on the anterior, and equally rude legs cut on the posterior projection. In a classification of this type, three divisions, determined by the shape of the anterior projection, are recognized: (1) with a human head; (2) with a reptilian head; (3) with an avian head. To these may now be added (4) with a mammalian head (other than human).

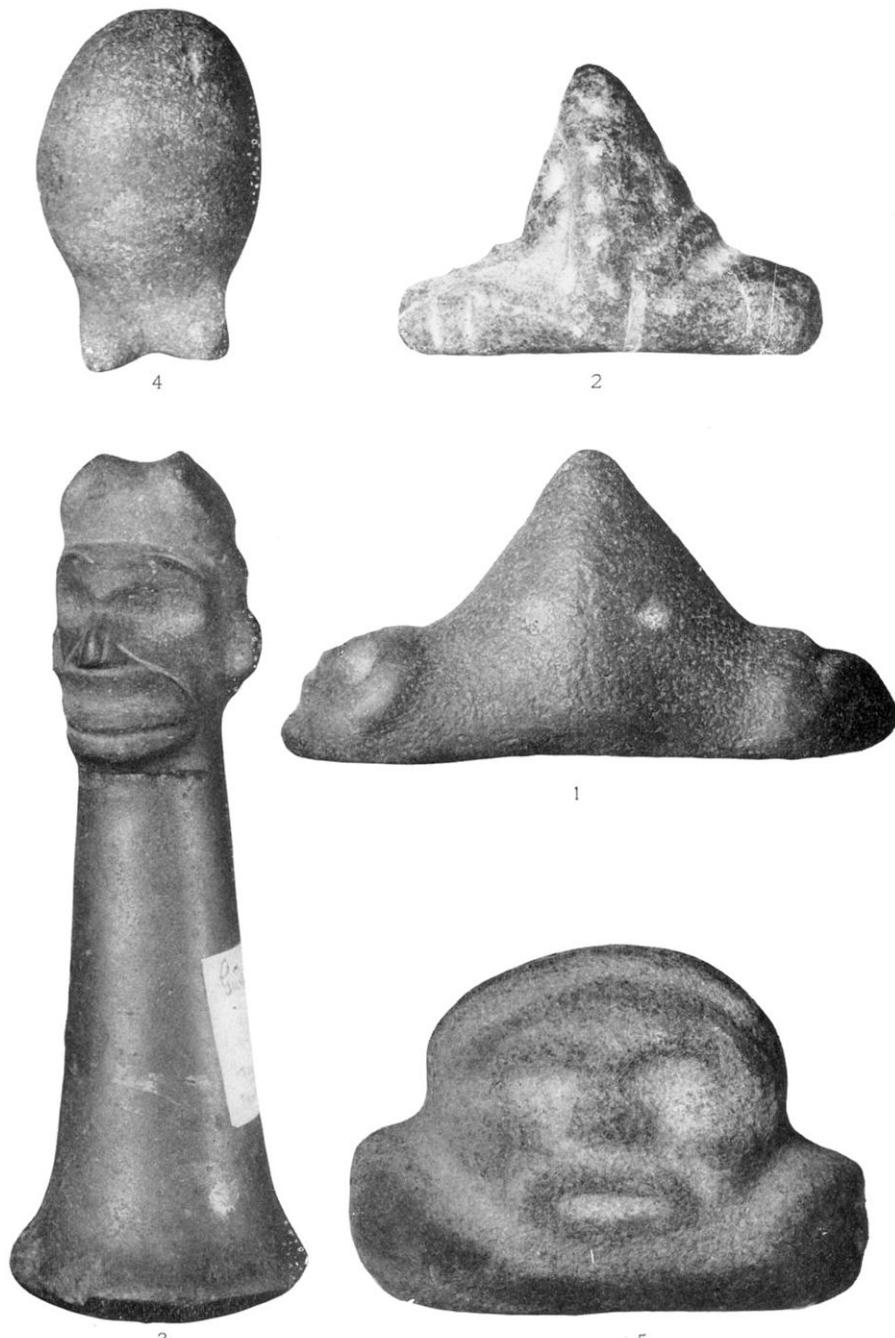
In his description of a specimen of the first type, now in the British Museum, Mr T. A. Joyce<sup>1</sup> points out that the form of its head shows that it does not belong to any one of the three groups suggested by the author. An examination of Mr Joyce's figure of this specimen and comparison of its anterior projection with the head of a manatee, or sea-cow, leads the author to refer the rare zemi in the British Museum to that animal, the sole known example of a fourth division of the first type that has yet been positively identified.

In the Gould collection sent to the Smithsonian Institution there is a good specimen of three-pointed zemi belonging to the first group of the first type. Although this specimen is not very different in form from others of the same group, already figured, it has one point of special interest, shown in the accompanying illustration (XLIV, 1). On each side of the conoid projection there are two pits or depressions similar to those on other specimens to which attention has been called elsewhere. In some cases these pits occupy the positions of the joints of limbs, and may have once contained fragments of shell or stones. In many of the specimens of three-pointed zemis in which these pits occur, appendages are absent; in others they are carved on the surface of the idol.

This specimen is said to have been found in a cave at Trujillo Alto, Porto Rico. It measures  $7\frac{1}{2}$  in. long by  $4\frac{1}{2}$  in. high.

*Second Type of Three-pointed Zemis.*—Specimens of the type in which a face is carved on one side of the conoid projection, or between its apex and the anterior projection, are much less abundant

<sup>1</sup>Journal of the Royal Anthropological Institute, XXXVII, pp. 407-408, London, 1908



STONE OBJECTS, PORTO RICO

1, Three-pointed Zemi (First Type). 2, Three-pointed Zemi (Second Type). 3, Pestle. 4, Ball with Knobs.  
5, Semicircular Stone.

than those of the first type in Porto Rican collections. Only five zemis of this kind are described in the author's memoir, and the majority of these came from Santo Domingo.<sup>1</sup> There is one additional specimen of the same type in the collection here considered (pl. XLIV, 2), and Señor Grullon has sent the author a photograph of still another, now in the Santiago Museum. These seven known specimens fall logically into two groups: three having limbs carved in relief on the sides, and four without any sign of appendage. One of the three-pointed stones here described belongs to the latter, the other to the former group.

The specimen of the second type, sent by Miss Gould, came from Aguas Buenas, Porto Rico, and according to its label was found in a cave.<sup>2</sup> It is instructive in several particulars, not the least being its geographical locality, indicating that the type is Porto Rican as well as Dominican. The illustration (pl. XLIV, 2) shows that this specimen has legs cut in low relief on the sides of the conoid projection. These appendages rise from the back and extend to the anterior projection where they terminate in feet which are brought together below the mouth. Round depressions, or pits, are found near the position of the joints, and just below the apex of the conoid projection is a small lateral depression. Grooves worn in the base of the conoid projection seem to indicate that the object was lashed to some foreign body. The face of this idol is without nose, while lips and ears, which ordinarily are prominent in the type, are inconspicuous. The tip of the posterior projection is considerably battered, but striæ in the stone at this point would appear to have been intended for feet. The specimen measures 6 in. in length by 4 in. in height.

The author's attention has been called by Señor Grullon to another fine and instructive specimen of this type from Santo Domingo (pl. XLV, *a*, *b*). It resembles that figured in plate XLV, figs. *b*, *b'*, of the author's memoir above cited, but unlike that specimen has

<sup>1</sup> The second type was originally distinguished from the first in the memoir above mentioned. The author has seen no representations of this type in other publications. A similar method of representing joints by incised circles is found in many Central American figures, and in Mexican bas-reliefs.

<sup>2</sup> Miss Gould has kindly furnished a photograph of the exact point in the cave where she was informed this specimen was found.

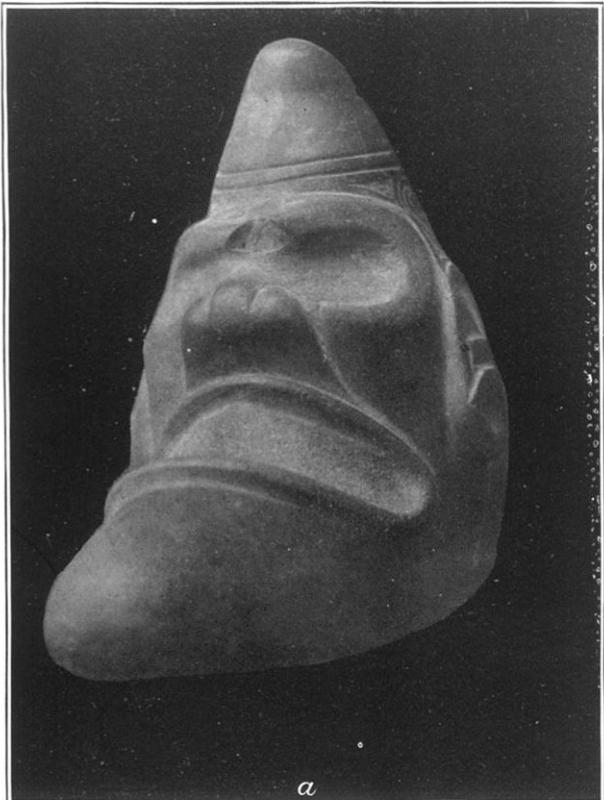
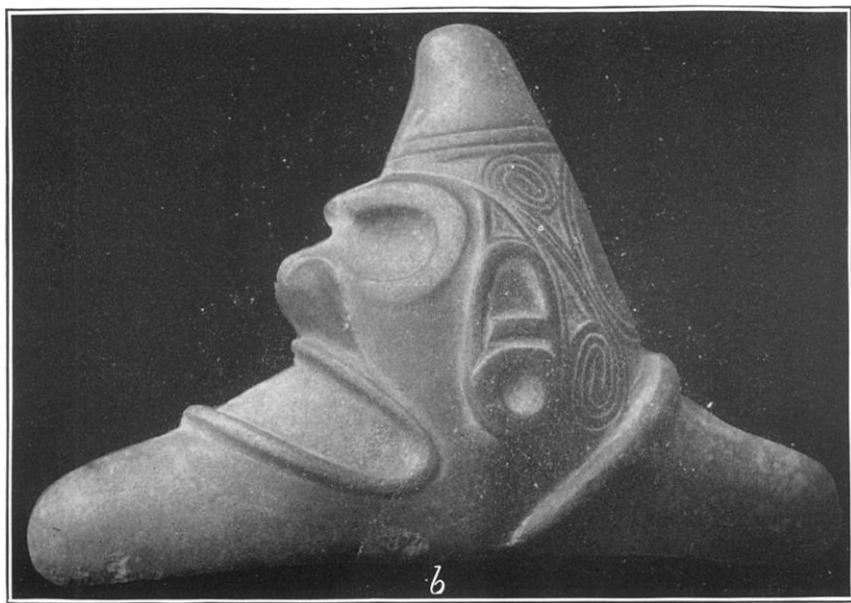
incised scrolls around a circle on the back like the object represented in plate XLVII of the same paper.

Unlike the one last mentioned, this zemi has no indication of legs or other appendage on the side of the conoid projections; but the ears are elaborately cut in relief, the mouth is large, the lips are rather narrow, the eyebrows flattened, and the nose is prominent. The ferule back of the head, which possibly indicates a neckband, is pronounced.

*Fourth Type of Three-pointed Zemis.* — The fourth type of three-pointed zemis includes all those which are destitute of head on either the anterior projection or the conoid prominence, and have no indication of a face on any part of the object. The specimens of this type vary considerably in general form, most of them having the anterior and posterior projections blunt and rounded, the cone being of limited height. The best figure of this variety can be seen in plate L, e, of the author's memoir on the *Aborigines of Porto Rico*. Another subdivision of the type has more pointed anterior and posterior projections, the surface lying between the anterior projection and the apex of the cone being slightly concave, while that portion which extends between the posterior projection and the apex is slightly convex. There are sometimes pronounced lateral ridges that extend from the apex of the cone to the edge of the base.

In the third subdivision of the type, the conoid projection is slender, while in the fourth the cone seems to rise out of a depression surrounded by a slightly elevated lip. The first two subdivisions of this type have been figured elsewhere (*op. cit.*, pl. L); the second two, here distinguished from the others for the first time, have not hitherto been illustrated. They will be considered in turn, beginning with the one last mentioned.

An instructive new form (fig. 134) of three-pointed zemis, to which the author's attention was called by Señor Grullon, is provisionally placed in the fourth subdivision of the fourth type, from which it differs in having an elevated fold or raised ridge enclosing a depression out of which rises the conoid projection. Although the general appearance of this stone has suggested phallicism, the author would not so interpret it. This is the only specimen of this form thus far described.

*a**b*

PHOTOGRAPH BY SR GRULLON

## THREE-POINTED ZEMI (SECOND TYPE)

*a*, Face view. *b*, Lateral view.

Another three-pointed zemi from Santiago has the conoid projection quite slender, more so than that of any other specimen. Its apex tips slightly forward toward the anterior end of the zemi. A photograph of this idol was sent to the author by Señor Grullon. This specimen belongs to the third subdivision of the fourth type.

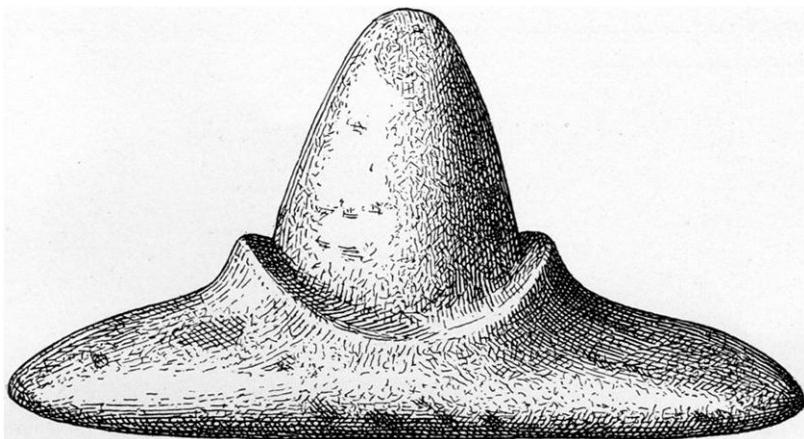


FIG. 134.—Three-pointed Stone of the Fourth Type.

*Stone Pestle.*—As a rule stone pestles from Porto Rico are inferior in make and decoration to those from Santo Domingo. This inferiority is not true of the specimen here figured, which is one of the finest from the West Indies thus far recorded.

This specimen (pl. XLIV, 3) was presented to the Smithsonian Institution by Señor Don Juan Cabezas, of Carolina, Porto Rico, and according to its label was plowed up near his estate. It is made of a hard, smoothly polished stone, and is the finest specimen of these objects from Porto Rico. It has an elongated, slightly tapering handle, with a well-carved head at one end, and a lens with slightly chipped periphery. The handle is without a ferule, and unfortunately is broken at the neck. The lips, nose, eyes, and ears are well carved in high relief. Each side of an elevation on the crown of the head bears a ring-like protuberance unlike anything in other described pestles from this region. This specimen measures  $7\frac{1}{2}$  in. in length.

Señor Grullon has sent to the author several good photographs

of a pestle in the Santiago Museum, decorated on one end with a head, perhaps designed to represent that of a bird, following a known custom in the decoration of pestle handles.

*Stone Mortar.*—There is a fine mortar (fig. 135) in the collection sent by Miss Gould. This mortar has a concavity on each side, and a distinct groove extending around the body. Of all West Indian mortars seen by the author this is the most interesting and is of most exceptional form.



FIG. 135.—Mortar.

*Semicircular Stone Disk.*—One of the semicircular stone disks in the Gould collection closely resembles that represented in plate L, f, f', of *Aborigines of Porto Rico*. It has a face on one side, and lateral extensions which show indications of grooves as if for lashing to some foreign body. The specimen (pl. XLIV, 5) measures 5 1/2 in. long by 4 1/4 in. high.

*Ovate Stone With Three Knobs.*—In his description of West Indian objects the author has figured, from the Imbert collection obtained in Santo Domingo, a stone ball with three rounded knobs situated near one pole (*op. cit.*, p. 175). In the collection sent by Miss Gould there is a stone ball (pl. XLIV, 4) similar to this, but more nearly oval in shape, from Porto Rico, the first specimen of this.

form from that island. The signification and use of this object are yet to be determined. Its round end affords no evidence of its use as a pestle. It is about 4 in. in longer and 3 in. in shorter diameter.

*Elbow Stone*.—A characteristic elbow stone, not elsewhere figured, was sent to the author from Vieques island, near Porto Rico. This

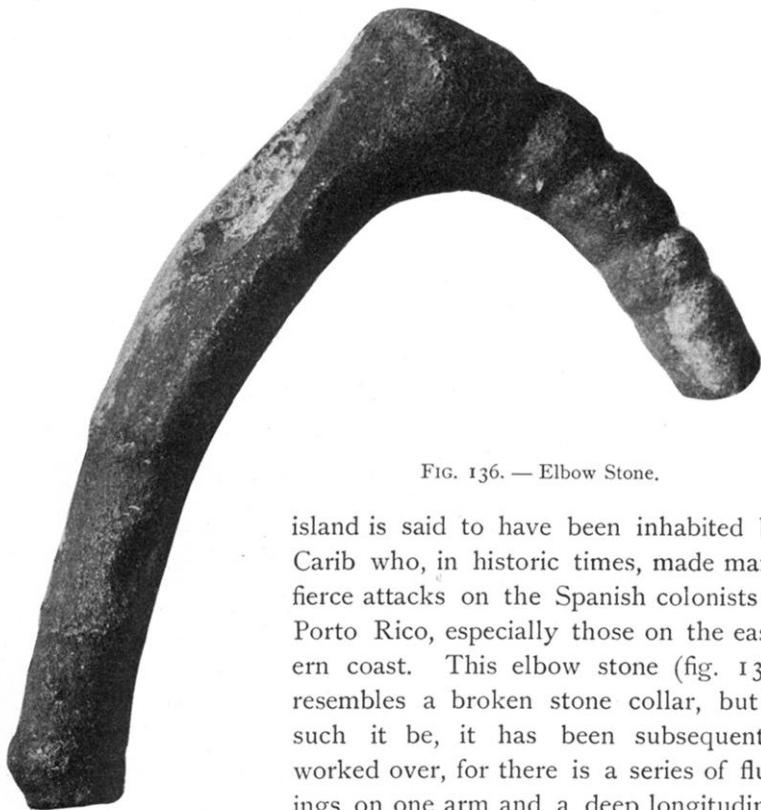


FIG. 136. — Elbow Stone.

island is said to have been inhabited by Carib who, in historic times, made many fierce attacks on the Spanish colonists of Porto Rico, especially those on the eastern coast. This elbow stone (fig. 136) resembles a broken stone collar, but if such it be, it has been subsequently worked over, for there is a series of flutings on one arm and a deep longitudinal groove extends along the fluted arm on the outside.

Miss Gould writes concerning a remarkable elbow stone, lately acquired by Señor D. Vicente Balbas, which has the two ends "approximately of equal length, at right angles, and each hollowed into an almost tubular socket." She suggests that these sockets are for "support by two poles," and it seems to the writer that this is very probably a correct explanation.

Mr Joyce adds a new interest to the discussion of the use of the

Porto Rican "stone collars" by suggesting that they were connected with tree worship, which, as we know from the writings of Ramon Pane and others, was well developed among the Antilleans. According to this theory the collar represents in stone a tree with branches tied together by a band (shoulder band), the prototype of the stone collar thus having been of wood. This ingenious theory has much to commend it, although, like other theories respecting these interesting objects, it awaits definite proof. In this connection the "elbow stone" would be a zemi transitional in form between a collar and a three-pointed stone that originally might have been tied to a wooden object.



FIG. 137. — Clay Cylinder.

It is commonly said that there is no reference in early writings to Porto Rican and Dominican stone collars, but Señor Coll y Toste, a well-known Porto Rican scholar, has called attention<sup>1</sup> to an early mention of "seven collars" owned by the Haitian cacique Caonabo.

*Clay Cylinder.* — Figure 137 exhibits two views of a clay object of cylindrical form, found at Vieques (?), Porto Rico, related to the so-called cylinder for stamping pottery, contained in the Archbishop Meriño collection from Santo Domingo. It is now in the

<sup>1</sup> *Prehistoria de Puerto Rico*, 1907.

Smithsonian Institution. The knob at each end of the cylinder is separated by a deep groove from the body of the object, on which are represented deep meanders. A section of the body of the cylinder shows that it is not circular, but slightly oval in form. One of the accompanying figures represents the upper or flattened surface; the other, one of the sides. The course of the grooved meander over the surface varies in each of the four quadrants, and in two instances the end of the groove is accompanied by a pit, as shown in the illustration. To this form of ornamentation on pottery attention has been called elsewhere.

*Double-bladed Ax.*—The majority of the *hachas* (axes) from Porto Rico are pointed at one end and from their form are called "petaloid." The double-bladed ax from Pueblo Viejo, sent to the Smithsonian Institution by Miss Gould, is almost unique in collections of stone implements from our new insular possession in the West Indies. Similar forms have been reported from Santo Domingo and the Lesser Antilles.

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